



Attorney Reference: 55600-8003.US01

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF:

Soos, J.M, *et al.*

SERIAL NO: 10/694,247

FILED: October 27, 2003

FOR: ORALLY-ADMINISTERED INTERFERON-
TAU COMPOSITIONS AND METHODS

EXAMINER: S. Foley

ART UNIT: 1648

CONFIRM NO.: 4066

DECLARATION OF DR. CHIH-PING LIU
UNDER 37 C.F.R. § 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Chih-Ping Liu, declare:

1. I am the Chief Scientific Officer of Pepgen Corporation, which is the exclusive licensee of the above-identified application. I founded Pepgen Corporation in 1992 and served as the President and Chief Executive Officer until my current appointment as Chief Scientific Officer.
2. My academic qualifications include a Ph.D. in Genetics that was awarded in 1977 from the University of Wisconsin-Madison.
3. Since about 1992, I have focused on developing interferon-tau for use in treating autoimmune disorders, particularly multiple-sclerosis (MS). During this time, I have studied MS, designed and supervised clinical studies on MS patients, and participated in conferences with clinicians involved in the research and treatment of MS.

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4. The various types of MS are often divided into two groups: (1) chronic-progressive MS and (2) relapsing-remitting MS. The chronic-progressive MS group includes the MS types primary progressive MS, secondary progressive MS, and progressive-relapsing MS. Primary progressive MS, secondary progressive MS, and progressive-relapsing MS are distinguished from relapsing-remitting MS by an absence of periods of disease remission when symptoms of the disease resolve or lessen.
5. The present application teaches that IFN γ can be used to prevent a relapse of a chronic, relapsing-remitting autoimmune disease such as, relapsing-remitting MS. The present specification teaches, for example, at page 18, lines 15-22 and page 32, lines 19-31 that a subject having a chronic, relapsing-remitting form of Experimental Allergic Encephalomyelitis (EAE) can be protected from a relapse of the disease by an ongoing administration of IFN γ .
6. Preventing a relapse of chronic, relapsing-remitting MS is distinguishable from "treating" a disease. As stated in U.S. Patent Nos. 6,372,206 and 5,906,816, "treating a disease refers to administering a therapeutic substance effective to reduce the symptoms of the disease and/or lessen the severity of the disease."
7. A disease can consist of a number of symptoms, each of which may be identified by a physical manifestation. As such, reference to "reduce the symptoms of the disease" refers to a reduction in the number of physical manifestations of the disease or to a reduction in the severity of a particular physical manifestation. For multiple sclerosis, the physical manifestations may include, for example, changes in sensation in the arms, legs, or face, vision problems, loss of muscle control, spasms, muscle weakness, numbness, etc. Drugs are given to relieve one or more of the symptoms presented. For example, tranquilizers can be used to treat muscle spasms.
8. The intensity of disease symptoms is a measure of the severity of the disease. As such, reference to "lessen the severity of the disease" refers to reducing the intensity of the physical manifestations of the disease. The number and intensity of disease symptoms is often measured using a clinical scoring system, such as the Kurtzke Expanded Disability Status Score (EDSS). These systems presume that there has either been an onset of the disease or a relapse of the disease and are often used to assess how the number and

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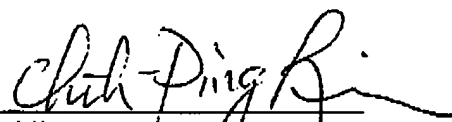
intensity of the symptoms are affected by a treatment and/or to monitor disease progression.

9. "Relapse" of MS is not considered to be a "symptom" of the disease, which, as discussed in the preceding paragraphs, refers to the particular physical manifestations associated with MS. Disease severity is also considered to be distinct from relapse, because relapse refers to whether the disease is active or inactive, regardless of the severity of symptoms presented.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Date: April 21, 2006


Chih-Ping Liu, Ph.D.